ABSTRACT OF THE DISCLOSURE

Waveform shaping by Fourier transformation is performed on data of N points from the head of detected data with a parameter of a previously set peak interval (S1, S2), base sequence is determined as to data of M points (M < N) from the head of the data of N points (S3), and a peak interval is obtained from the result of the sequence determination (S4). Waveform shaping by Fourier transformation is performed on data of N points from a position returning by L points (L < M) from final data of M points subjected to the sequence determination with a parameter of a precedently obtained peak interval, and thereafter the sequence determination, peak interval calculation and waveform shaping are similarly repeated. Thus, noise can be removed on the basis of Fourier transformation also as to a data section where a migration speed changes, for precisely determining the base sequence.